

the utilization of that services in Hungary. **METHODS:** Data were derived from the nationwide administrative dataset of the National Health Insurance Fund Administration (OEP), the only health care financing agency in Hungary. The utilization of home care (nursing) services was measured by the number of service provider, number of patients and the number of visits. We analyzed the year 2011. **RESULTS:** The number of home care (nursing) service providers was 333. 80.8% of them was private for-profit, while 10.9% private non-profit organization. Altogether 51,000 patients was visited by home care providers (50 patients/10,000 population). The total annual number of visits was 1,190,000 (1193 visits/10,000 population). The average health insurance reimbursement of 1 visit was 2788 Hungarian Forint (HUF) (10.0 EUR), while the average reimbursement of 1 patient was 65,345 HUF (234.0 EUR). **CONCLUSIONS:** We found that only 0.5 % of the Hungarian population underwent home care (nursing) services in 2011. Further development of home care services should be encouraged in order to reduce unnecessary hospital care.

## PHS88

### THE ROLE OF GEOGRAPHICAL PROXIMITY AND SERVICE CHARACTERISTICS ON PROMPT ACCESS TO HEALTH CARE IN CHPS SETTING IN RURAL BAWJIASE OF GHANA

<sup>1</sup>Nuamah Buruwaa G<sup>1</sup>, Agyei-Baffour P<sup>2</sup>, Akua Bonney A<sup>2</sup>

<sup>1</sup>Ghana Health Service, Korle Bu Teaching Hospital, Accra, Ghana, <sup>2</sup>Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

**OBJECTIVES:** Prompt access to effective health care is a priority in the developmental agenda of Ghana yet only 20% of people who need health care have it. Several established health interventions such as home management of fever and community-based health planning and service (CHPS) are underway. However, evidence on the extent of prompt access to health care and the factors that influence these CHPS programme are woefully inadequate. The study sought to assess the role of geographical proximity and services characteristics on prompt access to health care in CHPS settings. **METHODS:** A descriptive cross sectional study was conducted in 2011 with 230 respondents within the CHPS zones of Bawjiase Sub-district, Central region of Ghana. Data were collected with structured questionnaire and analyzed using SPSS version 16 software. Logistic regression was run to access the correlation of geographical proximity and service characteristics on prompt access to health care in CHPS settings at 95% confidence interval and 5% significance level. **RESULTS:** Knowledge about CHPS programme was almost universal 99%, nonetheless, 87% of respondents accessed health care services after 24 hours, lived within a distance of 0.05-0.4 km from CHPS centers and 54% takes approximately 15-30 minutes in reaching these settings,  $p < 0.001$ . Factors associated with geographical proximity in prompt access to health care were good location, easy local accessibility (door step delivery) and distance less than 5Km. Majority 96% of the respondents presumed health care services availability, immediate attention on arrival (within 24hours) at the health care facilities and quality of health care were service characteristics that influenced prompt access to health care. **CONCLUSIONS:** The study concludes that geographical proximity and service characteristics influence prompt access to quality health care in rural CHPS setting. Rolling out CHPS initiative and further study on knowledge and beliefs on access in CHPS setting could inform implementation.

## PHS89

### REFERRAL PATTERNS FOR PATIENTS TREATED WITH WARFARIN THROMBOPROPHYLAXIS AFTER HIP AND KNEE REPLACEMENT SURGERY

<sup>1</sup>Bathija S<sup>1</sup>, Walton S<sup>1</sup>, Lau D<sup>2</sup>, Galanter WL<sup>3</sup>, Schumock GT<sup>1</sup>, Nutescu E<sup>1</sup>

<sup>1</sup>University of Illinois at Chicago, Chicago, IL, USA, <sup>2</sup>National Center for Health Statistics, Centers for Disease Control and Prevention, Hyattsville, MD, USA, <sup>3</sup>University of Illinois Hospital and Health Sciences System, Chicago, IL, USA

**OBJECTIVES:** Identify factors associated with referral patterns for warfarin therapy management to specialized care versus routine medical care after hip or knee replacement surgery. **METHODS:** We conducted a retrospective, observational study of patients who underwent total hip or total knee replacement surgery between the 2000 and 2009 and were referred to receive either specialized care at antithrombosis clinic or routine medical care at orthopedic clinic for post-surgical anticoagulation management. A multivariate logistic regression analysis was performed to identify factors that were associated with referral to antithrombosis clinic. **RESULTS:** A total of 873 consecutive patients treated with warfarin were referred to the antithrombosis clinic (n=294) or orthopedic clinic (n=579). The majority of patients were females (68.3%) and the average age was 60±12.3 years. Hispanics (OR=4.24, 95% CI=2.38-7.57) compared to Caucasians, were more likely to be referred to antithrombosis clinic, as were Medicare patients (OR=2.03, 95% CI=1.27-3.25) compared to those with private insurance; divorced patients (OR=2.01, 95% CI=1.03-3.94) compared to those who were married; patients with >4 VTE risk factors (OR=3.06, 95% CI=1.16-8.10) compared to patients with 1 VTE risk factor; smokers (OR=4.23, 95% CI=2.44-7.33) compared to non-smokers; and patients with extended length of post-surgery hospital stay (OR=2.27, 95% CI=1.25-4.11). **CONCLUSIONS:** There were significant variations in referral patterns to specialized care versus routine care according to thrombosis risk profile and patient-related socio-demographic factors. An understanding of referral patterns to receive specialized care compared to routine medical care is important as these decisions can have an impact on the clinical outcomes, costs, and quality of care received by patients treated with anticoagulants.

## PHS90

### COMPARISON IN LENGTH OF HOSPITAL STAY RELATED TO THE DIAGNOSIS OF COPD PATIENTS BEFORE AND AFTER A PROGRAM OF PHARMACOTHERAPY MONITORING

Estrada JI<sup>1</sup>, Sanchez L<sup>2</sup>, Serna IA<sup>1</sup>

<sup>1</sup>CES University, Medellin, Colombia, <sup>2</sup>Antioquia University, Medellin, Colombia

**OBJECTIVES:** To compare numbers of admissions and days of hospitalization related to the diagnosis in a group of Chronic obstructive pulmonary disease (COPD), before and after their status as beneficiaries of a Pharmacotherapy Monitoring (PM). **METHODS:** Descriptive study, retrospective and comparison of results for a sample of patients (N=422) a year before and one year after receiving the intervention by PM; during this period they were recorded and classified as related or unrelated to the diagnosis COPD, all hospital admissions of patients, were quantified per stay days and a vector difference between the days before and after was built. **RESULTS:** Before the intervention by PM, 24% of patients had at least one hospital admission versus a 19% after; average length of stay before and after for both cases was 13 days with standard deviations of 11 and 13 respectively. 18% of the patients reported a decrease in the length of stay days, 66% remained the same and 15% reported an increase. The differences in the sociodemographic characteristics of patients with decreases and increases in the length of stay were those belonging to the average age (79 and 73 respectively) and schooling, where 22% of patients who had increases in the length of stay achieved at least high school degree compared with 34% of those who decreased. **CONCLUSIONS:** The comparison using descriptive statistics shows that the outcomes may be the result of intervention by PM. The significance of schooling outcomes lies in that the interventions made by PM, 72% are educating the patient/caregiver, which implies that a higher educational level would reflect greater response capacity. This work is a first step in a cohort comparison study.

## PHS91

### INCREASED BURDEN ON PRIMARY CARE PHYSICIANS PRECEDING DIAGNOSIS OF ALZHEIMER'S DISEASE IN THE UNITED KINGDOM

<sup>1</sup>Chen L<sup>1</sup>, Reed C<sup>2</sup>, Happich M<sup>3</sup>, Nyhuis A<sup>1</sup>, Faries DE<sup>1</sup>, Ascher-Svanum H<sup>1</sup>, Lenox-Smith A<sup>2</sup>

<sup>1</sup>Eli Lilly and Company, Indianapolis, IN, USA, <sup>2</sup>Eli Lilly and Company, Windlesham, UK, <sup>3</sup>Eli Lilly and Company, Bad Homburg, Germany

**OBJECTIVES:** To examine medical resource utilization patterns prior to and post Alzheimer's disease (AD) diagnosis in UK primary care. **METHODS:** Newly diagnosed patients with non-early onset AD between January 1, 2008 and December 31, 2010 were identified from the UK CPRD-GOLD database. The index date was defined as the first AD diagnosis. Eligible patients had a continuous record for the 3-year prior (index) period and 1-year post period, and were ≥65 years of age. Controls were identified by matching to AD patients on year of birth, gender, region, and Charlson co-morbidity index with a 2:1 matching ratio. Medical resource utilization was calculated over the 4-year study period at 6-monthly intervals. T-tests, chi-square tests, and Wilcoxon sum-rank tests (depending on the data type and distribution) were used comparing between AD and control. **RESULTS:** Cohorts of 3896 AD patients and 7792 controls were extracted. At index date, patients had a mean age (SD) of 79.8 (6.5) years and 65% were female. The mean primary care consultation rate per 6-month was higher in the AD cohort than the control cohort over the total study period ( $p < 0.05$ ) and showed a gradual increase in the controls over the 4 years (from 5-7 consultations), while the AD cohort showed a clear increase in the 6-months prior to the index (10 consultations) and stayed at this high rate over the 1-year post-diagnosis period. The proportion of patients with a secondary care referral was higher within the AD cohort than the control cohort (37% vs. 25% over the 4-year period,  $p < 0.05$ ), with the difference peaking in the 6-month prior to AD diagnosis (17% vs. 5%,  $p < 0.05$ ). **CONCLUSIONS:** A clear increase in primary care consultations in the 6-month period prior to AD diagnosis and its continuation in the year post-diagnosis suggest AD imposes a substantial burden on UK primary care.

## PHS92

### VULVAR CANCER-RELATED HOSPITALIZATIONS IN THE UNITED STATES: A RETROSPECTIVE POPULATION-BASED CASE-CONTROL STUDY

<sup>1</sup>Shahpurwala Z, Khanna R

University of Mississippi, University, MS, USA

**OBJECTIVES:** The objective of this study was to determine the inpatient burden among women diagnosed with vulvar cancer using the 2009 Health care Utilization Project Nationwide Inpatient Sample (HCUP-NIS) database. **METHODS:** A retrospective, cross-sectional study design was used. Inpatient burden among women with vulvar cancer (cases) was compared to those without vulvar cancer (controls). Further, factors predicting average length of stay (LOS), total charges, and mortality among cases were determined. Analyses (PROC SURVEY procedures) were performed using SAS ver.9.2. **RESULTS:** In 2009, there were 6,318 hospitalizations among women with vulvar cancer in the US. The overall rate of vulvar cancer-related hospitalizations was 31.89/100,000. The average total hospital charges, comorbidity scores, and number of procedures recorded were higher among cases versus controls. Average LOS was significantly longer among cases discharged to other health facilities as compared to cases that were routinely discharged. Greater number of diagnoses and procedures recorded were associated with longer LOS. An increase in the number of procedures recorded and longer LOS were associated with higher total charges. Inpatient mortality was higher among women of lower income and those admitted to rural hospitals. Mortality among women with vulvar cancer also increased with LOS and number of diagnoses on record. **CONCLUSIONS:** To the best of our knowledge, this is the first study to use a nationally representative database to provide information related to inpatient burden among women with vulvar cancer. Policy makers could use study results when making resource allocation